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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,993	07/28/2003	Mark A. Gohlke	019469.0233	7350

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EXAMINER	
NGUYEN, DANNY	
ART UNIT	PAPER NUMBER
2836	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/01/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/01/2007.

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Office Action Summary	Application No.	Applicant(s)	
	10/628,993	GOHLKE, MARK A.	
	Examiner	Art Unit	
	Danny Nguyen	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 November 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) *9-15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8,16-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. In response to the restriction requirement filed 11/20/2006, applicant elected to prosecute the invention defined by the Examiner as Group 1, including claims 1-8,16-23. Claims 9-15 are withdrawn without prejudice.

Claim Objections

2. Claims 1, 3, 4, 6, 16, 18, 19 are objected to because of the following informalities:

Claim 1, lines 4, 7, 9, the term "a load dump" should be "the load dump".

Claims 3, 4, 6, the term "a load dump" should be "the load dump".

Claim 16, lines 6, 10, 13, 21, the term "a load dump" should be "the load dump".

Claim 18, the term "a pulse detector" should be "the pulse detector".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Glehr (USPN 5,103,124).

Regarding claim 1, Glehr discloses a method for protecting a vehicle system from a load dump comprises sensing an input voltage pulse exceeding a first value (SPI)

(input voltage pulse UBB is sensed by threshold circuit 2, see figure 3), determining whether the voltage pulse is a load dump, disconnecting the system from power if the voltage pulse is a load dump (e.g. col. 6, lines 20-50), absorbing the voltage pulse if the voltage pulse is not a load dump (by the limiter 8, col. 3, lines 3-16, col. 8, lines 17-24, col. 6, lines 60-63).

Regarding claims 2, 17, Glehr discloses reconnecting the system when the voltage pulse concludes (e.g. col. 3, lines 50-65).

Regarding claims 3, 18, Glehr discloses measuring a time duration of voltage pulse (see figure 3).

Regarding claims 4, 19, Glehr discloses disconnecting the system if the time duration exceeds a second value (col. 3, lines 3-16).

Regarding claim 16, Glehr discloses a protection circuitry (figure 1) for protecting a vehicle system from a load dump comprises a pulse detector (2) operable to sense an input voltage pulse (UBB, see figure 3) exceeding a first value (SPI), determine whether the voltage pulse is a load dump (e.g. col. 6, lines 20-50), a series switch (6) coupled to the pulse detector, the switch operable to disconnect the system from power if the voltage pulse is a load dump, a load spike protector (limiter 8) coupled to the pulse detector absorbs the voltage pulse if the pulse is not a load dump col. 3, lines 3-16, col. 8, lines 17-24, col. 6, lines 60-63).

4. Claims 1, 2, 4, 16, 17, 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Heitzmann (USPN 5,285,344).

Regarding claim 1, Heitzmann discloses a method for protecting a vehicle system from a load dump comprises sensing an input voltage pulse exceeding a first value (e.g. col. 5, lines 4-26), determining whether the voltage pulse is a load dump, disconnecting the system from power if the voltage pulse is a load dump (col. 8, 9, lines 65-3), absorbing the voltage pulse if the voltage pulse is not a load dump (by the limiter 33, col. 9, lines 12-16).

Regarding claims 2, 17, Heitzmann discloses reconnecting the system when the voltage pulse concludes (col. 5, lines 4-21).

Regarding claims 4, 19, Heitzmann discloses disconnecting the system if the time duration exceeds a second value (col. 8, 9, lines 65-3).

Regarding claim 16, Heitzmann discloses a protection circuitry (figures 2-4) for protecting a vehicle system from a load dump comprises a pulse detector (25a) operable to sense an input voltage pulse (UBB, see figure 3) exceeding a first value, determine whether the voltage pulse is a load dump (e.g. col. 5, lines 4-26, col. 8, 9, lines 65-3), a series switch (27) coupled to the pulse detector, the switch operable to disconnect the system from power if the voltage pulse is a load dump (col. 5, lines 4-10, col. 8, 9, lines 65-3), a load spike protector (limiter 33) coupled to the pulse detector absorbs the voltage pulse if the pulse is not a load dump (col. 9, lines 12-19).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 5, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glehr. Glehr discloses the timer circuit (33) includes the delay with the second value, but Glehr does not disclose the second value comprising approximately 17 milliseconds as claimed. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select the value of the resistor and the capacitor of Gleher's timer circuit to any desired value as long as it compatible with the requirements of other elements in the circuit in order to properly performs the circuit against load dump event. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

6. Claims 6, 7, 21, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glehr in view of Stringfellow (USPN 6,359,737). Glehr discloses all limitations of claim 1 as discussed above, but does not disclose a display circuit as claimed. Stringfellow discloses a vehicle system comprises a display unit (10 in figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the vehicle system of Glehr to incorporate with a display unit as disclosed by Stringfellow in order to provides vehicle operator with both data and night vision display.

7. Claims 8, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glehr in view of Stringfellow, and Bloom et al (USPN 5,764,280). Glehr and Stringfellow disclose all limitations of claims 6,7, as discussed above, but do not disclose the display

unit is coupled to a global positioning system as claimed. Bloom discloses a vehicle comprises a display unit is coupled to a GPS system (col. 1, lines 27-47). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the display unit in vehicle system of Glehr and Stringfellow to incorporate with a GPS system as disclosed by Bloom in order to allow drivers to track vehicle's position with high accuracy.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danny Nguyen whose telephone number is (571)-272-2054. The examiner can normally be reached on Mon to Fri 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)-272-2058. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN

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2/4/2007

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